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Mind the Gap: Spiritualism and the Infrastructural Uncanny

Bernard Dionysius Geoghegan

In an age of new media start-ups, corporate consolidation, waning government regulation, military suppression of civil dissent, abbreviated textual communications, and destabilized gender identities—that is to say, in the latter half of the nineteenth century—spiritualism enabled its participants to bridge the gaps and disruptions that permeated everyday experience. From spiritualism’s heights in the 1850s through its gradual tapering off at the turn of the century, spiritualist movements mobilized tens of millions of followers globally around the conviction that the right combination of instruments and techniques could produce messages from silence and noise.¹

This essay reconstructs how spiritualism built real and productive communication networks around an *infrastructural uncanny*. With this term

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1. For discussion of the size of the spiritualist movement, see Ann Braude, *Radical Spirits: Spiritualism and Women's Rights in Nineteenth-Century America* (Bloomington, Ind., 2001), pp. 25–31; Alex Owen, *The Place of Enchantment: British Occultism and the Culture of the Modern* (Chicago, 2004), pp. 17–18; and Molly McGarry, *Ghosts of Futures Past: Spiritualism and the Cultural Politics of Nineteenth-Century America* (Berkeley, 2008), p. 178 no. 6–7.

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I have in mind a range of unsettling phenomena that tend to emerge in periods of rapid expansion in the means of technological conveyance. These means include railways, telegraphs, and canals and the less obvious examples of standard plumbing at home or standard instrumentation and classification systems in a laboratory. The uncanny emerges amidst a slight rupture or assonance, either internal to a networked relay or in its relationship to the embedding environment.² Literature on the arrival of railways in the nineteenth century, for example, is filled with accounts of the technological disturbance of domestic routines, the sense of everyday life controlled by remote or invisible forces, breakdowns in the distinction between here and there, appearances of doppelgängers, and the introduction of technics into human and moral conduct.³ Though often attributed to a collapse in time and space resulting from modern communications, these experiences more accurately mirror the failure of these promises. They appear where an infrastructure only partially fulfills the promise of smooth and continuous transitions among heterogeneous parts and sites. Encounters with the infrastructural uncanny thus pivot around the incomplete and partial features of communication—its gaps and its delays.

2. For Sigmund Freud and Martin Heidegger, efforts to render the world orderly and predictable produces encounters with the uncanny. For example, Heidegger's existential homelessness, Freud's undoing of the bourgeois home, and the confusion of human and machine in E. T. A. Hoffmann's "The Sandman" are associated with infrastructural mobilization. The abandoned country houses of Edgar Allan Poe and Freud's seedy urban districts also reflect an emptying out and decline associated with infrastructural modernization. Perhaps the groundlessness of existence being described by Heidegger lay less in the ontological structure of *Dasein* than in the historicity of infrastructure. See Sigmund Freud, "The Uncanny," *The Uncanny*, trans. David McLintock (New York, 2003), pp. 121–62, and Martin Heidegger, *Introduction to Metaphysics*, trans. Gregory Fried and Richard Polt (New Haven, Conn., 2000), pp. 128–218 and *Being and Time*, trans. John Macquarrie and Edward Robinson (New York, 2008), pp. 233–37.

3. These examples are drawn from Wolfgang Schivelbusch, *The Railway Journey: Trains and Travel in the Nineteenth Century*, trans. pub. (Berkeley, 1986); Jeannie Chiu, "Uncanny Doubles: Nationalism and Repression in Frank Chin's 'Railroad Standard Time,'" *Hitting Critical Mass* 1, no. 1 (1993): 93–107; and David E. Nye, *American Technological Sublime* (Cambridge, Mass., 1994) and *America as Second Creation: Technology and Narratives of New Beginnings* (Cambridge, Mass., 2003).

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Spiritualism refashioned these disruptions into productive elements in a wider sociotechnical infrastructure of communications.

To understand how spiritualists made productive the absences of modern infrastructure, this essay retraces an actor network of techniques, instruments, media, architectures, and inscriptions enchainned by spiritualist phenomena. It revisits the rise of spiritualism in lonely homes of western New York, its technical standardization in urban parlors and theaters, and its refashioning as an object of popular scientific instruction by British scientist Michael Faraday. They all belonged to a shared infrastructural game, structured by comparable moves and affordances, which produced similar kinds of claims about agency, communication, and selfhood. Locating nineteenth-century spiritualism within these infrastructural conditions enables a symmetrical analysis that considers the truth claims spiritualists and their opponents advanced with comparable historiographic standards.⁴ In short, this approach belonged to a wider socio-technical setup enabling complementary performances among diverse groups.⁵ Such a line of inquiry therefore results in a fuller portrait of how variegated mentalities, instruments, techniques, and geographical sites are bound together as parts of a common and productive assemblage.

From Medium to Infrastructure

Previous accounts of spiritualism characterize it as cultural interpretation or “fiction” for reflecting on the period’s dominant information and communication technologies (electricity, telegraphy, photography).⁶ Through these interpretive frameworks spirit-rapping becomes an imitation of telegraphic tapping or typewriters, spirit photography a reflection on the ontology of the photographic index, and so on. While this approach has its merits, it tends to impose a premature opposition between a durable media-technical base and its supposed cultural reception or interpretation. In addition, its emphasis on how the spiritualism of subversive local meanings empowered marginal and oppressed subgroups often

4. On symmetrical analysis, see Michel Callon, “Some Elements of a Sociology of Translation: Domestication of the Scallops and the Fishermen of St Brieuc Bay,” in *Power, Action, and Belief: A New Sociology of Knowledge?* ed. John Law (Boston, 1987), pp. 196–233, and Bruno Latour, *We Have Never Been Modern*, trans. Catherine Porter (Cambridge, Mass., 1993).

5. This advantage is at variance with the merits typically attributed to symmetrical analysis. Symmetrical analysis is seen as a method for treating groups later discredited with the same historiographic standards as the ultimate “winners” of the debate.

6. I discuss this literature below, but see, most notably, Jeffrey Sconce, *Haunted Media: Electronic Presence from Telegraphy to Television* (Durham, N.C., 2000), p. 6.

obscures how appeals to spiritual and occult practices also enabled new forms of productivity in existing scientific and industrial systems.⁷

Spiritualism was less a fiction for thinking about media than it was a technology in its own right. Thus, spiritualists practiced a bricolage that laced together diverse techniques, codes, electrics, song and dance, political address, scientific experimentation, parlor games, group meditation, experimental photography, theatrical display, and the bodies of roving lecturers and the leisured bourgeoisie.⁸ The agency and efficacy of the spiritualist movement sprang from its ability to interconnect these heterogeneous elements into a scalable infrastructure that tied together millions of practitioners.⁹ Yet the technical amalgamations of spiritualism are obscured by appeals to a media technical a priori, with its emphasis on the correlation of a particular technology (telegraphy, photography, the typewriter) to the cultural forms of spiritualism.¹⁰ Moreover, such cultural histories attribute a stability and identity to the medium that in most cases did not emerge until decades later.¹¹ Spiritualism did not imitate

7. On subgroups and spiritualism, see Braude, *Radical Spirits*, and McGarry, *Ghosts of Futures Past*. On the productivity of spiritualism in science and technology, see Emily Ogden, "Beyond Radical Enchantment: Mesmerizing Laborers in the Americas," *Critical Inquiry* 42 (Summer 2016): 815–41.

8. On entertainment and leisure, see David Walker, "The Humbug in American Religion: Ritual Theories of Nineteenth-Century Spiritualism," *Religion and American Culture* 23 (Winter 2013): 30–74. On scientific and electrical experimentation, see John Warne Monroe, *Laboratories of Faith: Mesmerism, Spiritism, and Occultism in Modern France* (Ithaca, N.Y., 2008), and Jeremy Stolow, "Mediumnic Lights, X^s-Rays and the Spirit Who Photographed Herself," *Critical Inquiry* 42 (Summer 2016): 923–51. On song, see E. M. Henck, *Spirit Voices: Odes, Dictated by Spirits of the Second Sphere, for the Use of Harmonial Circles* (Philadelphia, 1855).

9. On infrastructure and scaling, see Geoffrey C. Bowker and Susan Leigh Star, *Sorting Things Out: Classification and Its Consequences* (Cambridge, Mass., 2000), and Paul N. Edwards, "Infrastructure and Modernity: Force, Time, and Social Organization in the History of Sociotechnical Systems," in *Modernity and Technology*, ed. Thomas J. Misa, Philip Brey, and Andrew Feenberg (Cambridge, Mass., 2003), pp. 185–225.

10. This conceptual inadequacy reflects the historicity of media theory itself; modern film and media studies developed in the latter half of the twentieth century when well-defined platforms such as film, television, radio, and the internet all emerged, with each distinguished by specific practices, technologies, and spaces of reception. For more examples of the turn from medium to infrastructure in recent media studies, see Nicole Starosielski, *The Undersea Network* (Durham, N.C., 2015), and *Signal Traffic: Critical Studies of Media Infrastructures*, ed. Lisa Parks and Starosielski (Urbana, Ill., 2015).

11. On the plurality of the telegraph, for example, see John Durham Peters, "Technology and Ideology: The Case of the Telegraph Revisited," in *Thinking with James Carey: Essays on Communications, Transportation, History*, ed. Jeremy Packer and Craig Robertson (New York, 2006), pp. 137–55. On the stabilization of the electrical telegraphy in the early twentieth century, see Richard R. John, *Network Nation: Inventing American Telecommunications* (Cambridge, Mass., 2010), pp. 340–69.

media; it offered a means to scale between the gaps in these emerging technical forms, elaborating codes, protocols, and instruments for productive communications. Spiritualism is not a text but a machine.

Et in Arcadia Ego

Let's begin at the beginning. In March 1848 in Hydesville, New York, members of the Fox family heard something go bump in the night. This irregular sound convened a small but efficient communication network. Parents John and Margaret had moved from Rochester to this small hamlet in Arcadia the previous December with their daughters, Kate and Maggie, aged twelve and fifteen.¹² A married son was already living in the area, and an elder daughter had stayed behind in Rochester with her husband.¹³ According to an official statement made by Mrs. Fox, daughter Kate discovered that the mysterious rapping could respond mimetically to the sound of her snapping fingers (see *MS*, p. 40). Elder daughter Maggie invited the unseen signaler to join her in counting "one, two, three" as she knocked upon the table. Again, the rapping repeated these sounds. This simple game bound the daughters together in a strange network of bodily exchange with the unknown as well as one another. Perhaps hesitating to give her own body over to these uncanny operations, Mother Margaret participated vocally: "I asked the ages of my different children successively, and it gave the number of raps corresponding to the ages of each of my children" (*MS*, p. 40).

The snapping fingers, knocking fists, and wagging tongues—held together by an unknown agent—consolidated into a tight-knit and rapidly expanding infrastructural relay. When the trio of women inquired into the identity of the rapper, it revealed itself as the disembodied spirit of a peddler murdered by previous residents and interred beneath the home (see *MS*, pp. 40–41). Now they were four. According to a friend who joined the family, the disturbances now "spread from one house to another and from one neighborhood to another."¹⁴ With the permission of the spirit, a neighbor, Mrs. Redfield, was brought into the circuit. Mr. Redfield was followed by neighbors Mr. and Mrs. Duesler, Mr. and Mrs. Jewell, and a growing number of looky-loos attracted from a nearby fishing creek (see

12. See E. W. Capron, *Modern Spiritualism: Its Facts and Fanaticisms, Its Consistencies and Contradictions* (Boston, 1855), pp. 39–40; hereafter abbreviated *MS*.

13. See *A Report of the Mysterious Noises Heard in the House of Mr. John D. Fox, in Hydesville, Arcadia, Wayne County (Canadaigua, N.Y., 1848)*, pp. 22, 27.

14. Capron and Henry D. Barron, *Explanation and History of the Mysterious Communion with Spirits, Comprehending the Rise and Progress of the Mysterious Noises in Western New York, Generally Received as Spiritual Communications* (New York, 1850), p. 9.

MS, pp. 41–42). One of them, a domestic servant of previous residents of the house, recalled a peddler who went missing around the time the masters of the house came into possession of a trove of manufactured goods.¹⁵

“On the next day,” Margaret reported, “the house was filled to overflowing all day” (MS, p. 42). One resident described “crowds that came from far and near, filling the roads and lining the fences with horses and vehicles.”¹⁶ There was no abating the onslaught of noisy guests from adjacent villages and parallel dimensions. In hopes of securing some peace, the ladies of the Fox family went to sleep in neighboring homes, and daughter Kate was dispatched to the sister’s home in Rochester via a packet boat traveling the Erie Canal. None of these measures brought respite. The rapping jumped from the body of one sister to the next, besieging all three daughters in the end (see MS, pp. 50–52).¹⁷ Bedeviled by this turn of events, the entire family resettled in Rochester, where new outbreaks appeared, attracting the attention of the local press. Within a year, a rash of spirit-rappings seized the region. Just seven years later, spiritualism was a movement with one to three million Americans entertaining spiritualist beliefs (out of a population of around twenty-six million, total).

From Superstructure to Infrastructure

Fascination with the most marvelous features of spirit-rapping has often concealed the infrastructural uncanny present at its origins: a modest rural home occupied and abandoned by at least three families and two servants between 1844 and 1848, a family scattered and reconsolidating as it moves back and forth between city and country via canal, superficial familiarity paired with underlying distrust among neighbors, uncertainty about the comings and goings of members in the community, and itinerant salesmen supplying goods whose exact origins and destinations cannot be properly verified. The aforementioned Erie Canal was a major source of these movements, the nearby boomtown of Rochester their destination. The canal’s completion in 1825 had converted the entire region

15. On the identity of the peddler, see *A Report of the Mysterious Noises Heard in the House of Mr. John D. Fox*, pp. 38–40. On other details, see A. Leah Underhill, *The Missing Link in Modern Spiritualism* (New York, 1885), p. 16.

16. Quoted in David Chapin, *Exploring Other Worlds: Margaret Fox, Elisha Kent Kane, and the Antebellum Culture of Curiosity* (Amherst, Mass., 2004), p. 34; hereafter abbreviated EOW.

17. See *A Report of the Mysterious Noises Heard in the House of Mr. John D. Fox*, p. 10. Some accounts suggest the Fox family dispatched both sisters to Rochester. See, for example, Werner Sollors, “Dr. Benjamin Franklin’s Celestial Telegraph, or Indian Blessings to Gas-Lit American Drawing Rooms,” *American Quarterly* 35 (Winter 1983): 477.

into what one historian called “a series of trading spheres, each subsidiary to one or several local towns.”¹⁸

This kind of infrastructural mobilization was a structuring conceit in many American literary works of the period, such as Edgar Allan Poe’s “The Man of the Crowd” (1845) or Herman Melville’s *The Confidence-Man* (1857).¹⁹ However, unlike those other tales—focused as they are on traffic within central thoroughfares of modernity (Poe’s city streets and Melville’s Mississippi River) traversed by bodies of uncertain origin—the rapping in Hydesville took place at the margins of established infrastructures. One spiritualist described Hydesville as lonely, inaccessible by railroad, and “unmarked by those tokens of progress that the locomotive generally leaves in its track,” a fact confirmed by maps from the period (figs. 1–2).²⁰ Hydesville had neither the advantages of the bucolic countryside nor those of cities and towns directly on the canal or railway. The actual work of communications was outsourced to itinerant middlemen like the disappeared peddler.²¹ Maggie Fox captures the isolation of the region in an 1850 correspondence, writing from Hydesville to a friend in Rochester, “You can’t think how lonesome it is out here. . . . It seems as if I have been here three months instead of three weeks. I am anxious to get back to Rochester again” (quoted in *EOW*, p. 44).

The common explanation that the girls produced the rapping through some discreet cracking of their joints has a certain interest as physiological trivia; of greater intellectual interest are the mechanisms by which this simple and apparent fraud mobilized bodies and broadsheets all across the region. The effect based itself on double-pronged engagement with the infrastructural uncanny. On the one hand, its suspenseful subject matter—the missing peddler, neighbors coming and going, distrust among the members of an ill-defined community, and the more general sense of invisible agencies and forces pushing and pulling the town—seized upon all unsettled features, turning them into a story both of and for the Hydesville community. Visitors converged from Rochester, interviewing

18. Whitney R. Cross, *The Burned-Over District: The Social and Intellectual History of Enthusiastic Religion in Western New York, 1800–1850* (New York, 1965), p. 59.

19. See, for example, Tom Gunning, “From the Kaleidoscope to the X-Ray: Urban Spectatorship, Poe, Benjamin, and *Traffic in Souls* (1913),” *Wide Angle* 19, no. 4 (1997): 25–61, and John Tresch, “‘Matter No More’: Edgar Allan Poe and the Paradoxes of Materialism,” *Critical Inquiry* 42 (Summer 2016): 865–98.

20. Emma Hardinge, *Modern American Spiritualism: A Twenty Years’ Record of the Communion between Earth and the World of Spirits* (New York, 1870), p. 29.

21. See *A Report of the Mysterious Noises Heard in the House of Mr. John D. Fox*. The earliest reference I have found comparing spirit-rapping to an electrical telegraph dates to 1850 and appears in Capron and Barron, *Singular Revelations*, p. 93.



FIGURE 1. Detail of Calvin J. Smith, "A New Map for Travelers through the United States of America Showing the Railroads, Canals & Stage Roads with the Distances" (New York, 1846). Courtesy of Library of Congress Geography and Map Division.



FIGURE 2. Detail of Chas Barr, "Telegraph Stations in the United States, the Canadas, & Nova Scotia" (1853). Courtesy of Library of Congress Geography and Map Division. The approximate location of Hydesville is marked with an arrow on the close-up of an 1846 map of railways (see figure 1) and this map of telegraph lines. Hydesville was located about halfway between the thirty-five mile gap separating the major infrastructural paths of Lake Ontario and a railway recently constructed from Rochester to Albany. Hydesville and surrounding Arcadia do not appear to have ever hosted their own railroad station or telegraph station, nor do they seem to be marked on infrastructural maps from that period.

witnesses and gathering reports. The trustworthiness of the girls, the conduct of the neighbors, and the history of the house, along with other matters, became the subject of testimony and debate, as printed in the 1848 pamphlet *A Report of the Mysterious Noises Heard in the House of Mr. John D. Fox, in Hydesville, Arcadia, Wayne County, Authenticated by the Certificates, and Confirmed by the Statements of That Place and Vicinity*.

On the other hand, the girls' rapping bridged these infrastructural gaps and disruptions by forming an ad hoc infrastructure of community members' bodies. The sounds that traversed the Fox family home established a kind of intranet that jumped the breaches among individuals, families, and homes around the region. Within days of the first manifestations, mothers and daughters, husbands and wives, past and present residents had assembled into a communicative community structured by elementary rules developed in the Fox family's abode. A series of codes and conventions interpenetrated in this network. There was the basic structure of the rapping itself, which gathered and configured the family in specific hierarchies and series, with girls followed by women followed by a wider

community of intimates and observers. There were also the statements gathered and printed in 1848, which followed the technical protocols of juridical or scientific testimony. Transposal of these statements interposed another layer of technical expertise. The subsequent circulation of the pamphlet throughout the region added another layer of communication at a distance, which in turn transformed the status of Hydesville itself.

Collectively, these components of spirit-rapping comprised a machine that refashioned the gaps of irregular infrastructure into a system of shadow communication. Here, the familiar media theoretical claim that spiritualists simply imitated an actual and existing technology confronts a stranger tendency, one in which the absence of the medium gives rise to spiritualist activities. In the breaks between positive and reliable relays, spirit-rapping established its own codes and enlisted its own materials, gradually interlacing them with the additional codes and matter of kinship, the community, technologies of trust and witnessing, the printing press, and ultimately the canal and city of Rochester itself, which spirited the girls and their family away.

Standard and Heterogeneous Parts

As spirit-rapping travelled, it integrated practices, techniques, instruments, and conventions from the local setting around new schematics of communication and recursion. In Hydesville it had focused on site-specific disruptions characteristic of rural life. Particular bodies, communities, and events functioned as essential elements. In Rochester, spirit-rapping became a normalized technical system applicable to a wide range of bodies and settings. Standardized setups and protocols paved the way for reproduction in diverse settings and the replacement of various parts that once seemed intrinsic to its operation (such as the Fox sisters). This emergence of spiritualism as a “standardized package” permitted its rapid expansion, enabling translation among a much wider array of bodies, discourses, audiences, and sites.²²

Ground zero for this refashioning was the home of the progressive thinkers Amy and Isaac Post, who sought out the Fox girls shortly after their arrival.²³ Under the tutelage of the Posts, the rapping-spirits adapted techniques of communication that were increasingly efficient. The Posts taught the spirits to respond to certain letters and to call out words, which

22. On standardized packages, see Joan H. Fujimura, “Crafting Science: Standardized Packages, Boundary Objects, and ‘Translation,’” in *Science as Practice and Culture*, ed. Andrew Pickering (Chicago, 1992), pp. 168–211.

23. See Braude, *Radical Spirits*, pp. 10–11.

recast the brusque rapping into a sophisticated technical grammar (see *MS*, p. 63).²⁴ In fact, in 1848 the Posts convened what was perhaps the first séance, purportedly inviting distinguished law and publishing figures to attend, including Frederick Douglass (a close friend and editor of the *North Star*).²⁵ That first session turned into subsequent weekly meetings, in which the two Fox sisters—and later their older sister Leah—answered queries from the Posts and their friends. In consequence, these methods furnished a code and format for reliable and predictable communications in a format that also facilitated domestic entertainment.

This operational innovation may have reflected the status of the Post home as an alternate channel for bodies, concepts, and techniques constrained by more mainstream avenues of circulation. In addition to hosting abolitionists such as Douglass and Sojourner Truth as well as proponents of women's suffrage, who passed through for public speaking engagements, the Posts also received runaway slaves en route to Canada via the Underground Railroad.²⁶ Recalling the clandestine knocks and notes that brought these refugees to their door, Amy Post wrote, "Although [the Underground Railroad] had its depots, stations, passenger agents and conductors in every state in the Union, daylight never shone upon it. Its stations had no electric lights, and the passengers no guide."²⁷

The Fox girls' rapping intertwined with the itineraries of the Posts' guests. The spirits increasingly spoke of social justice and the rights of women and blacks. Over the course of the 1850s, suffragettes and abolitionists responded in kind as they incorporated spiritualist channeling into their travelling lectures across the country.²⁸ Spirit-rapping and spin-offs such as trance speaking lent a formal coherency to performances that varied widely, meeting the demands of audiences with diverse desires and expectations. The stabilizing effect standard techniques introduced

24. See also *ibid.*, pp. 10–15.

25. See McGarry, *Ghosts of Futures Past*, p. 31, and Julia Schlesinger, *Workers in the Vineyard: A Review of the Progress of Spiritualism, Biographical Sketches, Lectures, Essays, and Poems* (San Francisco, 1896), p. 20.

26. See Amy Post, "The Underground Railroad," in *Semi-Centennial History of Rochester*, ed. William F. Peck (Syracuse, N.Y., 1884), pp. 458–62. (Although the front matter credits William Peck as author of the volume, footnotes indicate the chapters were, in fact, contributed, as with this text by Amy Post.) See also Braude, *Radical Spirits*, pp. 11, 26–27; Victoria Sandwick Schmitt, "Rochester's Frederick Douglas, Part One," *Rochester History* 67 (Summer 2005): 15–17; and Carleton Mabey and Susan Mabey Newhouse, *Sojourner Truth: Slave, Prophet, Legend* (New York, 1993), p. 57.

27. Post, "The Underground Railroad," p. 458.

28. This is intermittently discussed throughout Braude, *Radical Spirits*, pp. 56–81.

to spirit-rapping itself likewise permitted its circulation as a stabilizing element in new communicative assemblies.

Making Spiritualism Public

Michel Foucault once suggested that the dearth of curiosity in the present stemmed from channels of communication too narrow and monopolistic, adding that for a new age of curiosity “we must increase the possibility for movement backward and forward . . . [thereby leading] to the simultaneous existence and differentiation of these various networks.”²⁹ Mid-century Rochester suffered no such dearth, however. The intertwining of rapping and public performance that took place in the home of the Posts reflected Rochester’s status as a stop-off point in an emerging circuit of national entertainments (see *EOW*). An influx of investment, building projects, and immigrants into Rochester since the 1840s had led to the rapid growth of urban distractions.³⁰ These developments culminated in 1849 with the opening of Corinthian Hall, a lavish 1,600-seat theater towering opposite a soaring glass arcade that hosted a mixed program of entertainment and instruction. In its first few years of operation, its program included political and scientific lectures by the likes of Douglass, naturalist Louis Agassiz, and President Millard Fillmore,³¹ social reflections by Ralph Waldo Emerson, presentations of stock plays and “‘humorous and dramatic impersonations of character’” by theatrical troupes, and concerts by “‘the Swedish Nightingale’” Jenny Lind.³²

Spirit-rapping adapted its streamlined protocols to the communicative forms of curiosity. In 1849, spirits declared to the Foxes and their associates, “‘you all have a duty to perform. We want you to make this matter more public’” (*MS*, p. 90). The Foxes rented out Corinthian Hall for three nights of public demonstrations at the spirits’ behest. Announcements in the local press invited “‘citizens of Rochester [to] embrace this opportunity of investigating the whole matter, and see if those engaged in laying it before the public are deceived, or are deceiving others, and if neither, account for these truly wonderful manifestations’” (*EOW*, p. 47).

29. Michel Foucault, “The Masked Philosopher,” interview by Christian Delacampagne, trans. Alan Sheridan, in *Ethics: Subjectivity and Truth*, trans. Robert Hurley et al., ed. Paul Rabinow, vol. 1 of *The Essential Works of Michel Foucault, 1954–1984* (New York, 1997), p. 326.

30. See George C. Cooper, “Amusements in Rochester,” in *Semi-Centennial History of Rochester*, pp. 455–58, and Blake McKelvey, *Rochester on the Genesee: The Growth of a City* (Syracuse, N.Y., 1993), pp. 55–62.

31. See McKelvey, *Rochester on the Genesee*, pp. 68–69.

32. Donovan A. Shilling, *It’s Showtime in Rochester* (Victor, N.Y., 2014), pp. 29, 28.

At Corinthian Hall, the Foxes staged spirit rapping as an interactive inquiry. A committee of five distinguished spiritualist proponents and five representatives appointed by the audience were charged with investigating the source and authenticity of the rapping. Across three nights, questions were posed to the rapping about family and friends, lost loved ones, and private experiences known only to the questioner, with answers following that were “‘not altogether right, nor yet entirely wrong’” (*EOW*, p. 50). At the end of the series, the investigating committee found no explanation for the source of the rapping or its unusual intelligence. This absence of an apparent origin or exposition for the rapping prolonged the controversy. Newspaper reports proliferated, and outside experts weighed in. Chatter of noble experts bested by the sights and sounds of two girls from the countryside circulated, too. A paper partial to the rapping, the *Daily News*, explained the matter this way: “‘If the parties concerned refused to submit to any investigation, we would be the first to scout them as humbugs; but while they challenge scrutiny no man has a right to make any such charge’” (*MS*, p. 96).

Shortly after the Rochester exhibitions, physiologists and three scientists offered a more mundane explanation for the rapping: noisy knee joints (see *MS*, pp. 309–34). Starting from the premise that “‘immaterial agencies are not to be invoked until material agencies fail,’” a physiologist and two doctors from the University of Buffalo concluded subtle manipulation of the knee and other joints could account for the observed rapping (*MS*, p. 310). The Fox girls challenged the doctors to a demonstration, which the latter gladly accepted. When, in full view of a paying public, the doctors carefully controlled the placement and movement of the girls’ knees, the knocking ceased, but when the girls resumed their familiar positions, sounds of mysterious rapping returned. Local newspapers dubbed this demonstration the “‘grand finale of the Rochester knockings’” (*MS*, p. 318). Yet the girls soon returned for another, this time bearing bells they mounted underneath a table. They took the stage, and, without a word from the audience, the bells began ringing of their own accord, delivering by chimes the messages once delivered by raps. The elaborate signaling of bells communicated that “‘the mediums have no agency in it’” (*MS*, p. 320). Spirit-rapping assimilated the doctors’ challenges into an improved system of communications, now equipped with fail-safe redundancies.

Spirit-rapping (and occasional bell ringing) had become an occluded core for amalgamating observations, instruments, techniques, discourses, and media. As word of the controversy spread, the spiritualist machine brought the Fox sisters on the road for public demonstrations held all along the Eastern seaboard and as far west as Ohio (see *MS*, pp. 101–12, 172–203, and *EOW*, pp. 106–14). News of these exhibitions traveled the

nation. Scientific experts travelled in advance as well as in the wake of the sisters to deliver disenchanting counterlectures. The scientific challengers produced an uptick in sales for the Fox sisters (see *EOW*, pp. 88–96).³³

Public fascination reflected less a belief in the truth of spirit-rapping than a pleasure in how it exploited gaps in familiar modes of scientific explication. Gaps themselves were not particularly new. While Robert Boyle and Isaac Newtown had admitted inexplicable “occult qualities” as necessary elements in their fabric of empirical analysis, Baruch de Spinoza had observed that no experimental science could disprove the existence of miracles and ghosts.³⁴ Science could stabilize experimental setups around standard parts and procedures, but the singular events would necessarily slip through the occasional crack or dwell at the margins.

The innovation of spirit-rapping in Rochester placed the gaps of scientific explanation at the very center of experimental attention. By attributing agency to the rapping (rather than the mediums themselves), the Fox sisters could plead ignorance on matters of theology or natural science. They did not have the answers, so they claimed. Audiences took it upon themselves to compile testimony and evidence and to repeat demonstrations to find the elusive source of the sounds. Humbug and bosh were assumed but not easily proven by scientific experiment.³⁵ Questions posed would thus revolve around this apparatus, never quite coming to rest or reaching some definitive conclusion, bringing the audiences back, keeping the scientists quarreling, and letting the spirit-rapping and its mediums continue to circulate.

33. For texts that courted theological and scientific controversy, see *Spiritual Instructions Received at the Meetings of One of the Circles Formed in Philadelphia for the Purpose of Investigating the Philosophy of Spiritual Intercourse* (Philadelphia, 1852), and E. C. Rogers, *Philosophy of Mysterious Agents, Human and Mundane: or, The Dynamic Laws and Relations of Man. Embracing the Natural Philosophy of Phenomena Styled “Spiritual Manifestations”* (Boston, 1853). As an example of a text mobilizing the controversy surrounding spiritualism and women’s rights, see the satirical work Fred Folio, *Lucy Boston; or, Woman’s Rights and Spiritualism: Illustrating the Follies and Delusions of the Nineteenth Century* (New York, 1855).

34. On Boyle and Newton, see Keith Hutchison, “What Happened to Occult Qualities in the Scientific Revolution?” *Isis* 73 (June 1982): 233–53. On Spinoza, see Thomas Laqueur, “Why the Margins Matter: Occultism and the Making of Modernity,” *Modern Intellectual History* 3 (Apr. 2006): 133.

35. On humbug and uncertainty, see Neil Harris, *Humbug: The Art of P. T. Barnum* (Chicago, 1973), and James W. Cook, *The Arts of Deception: Playing with Fraud in the Age of Barnum* (Cambridge, Mass., 2001).

Making Spiritualism Private

As the Fox sisters transformed spirit-rapping into a concrete machine for public consumption, the séance graduated into an abstract machine independent of the girls and their bodies. Rival mediums adapted the simplified codes, standard spatial setup, and question-and-answer format for their own circles. The most influential interpreter of the séance, Andrew Jefferson Davis, the “Poughkeepsie Seer,” began the work of developing standard formats for convening such events. He incorporated scientific notions and technical instrumentation into the space of the séance. Writing in 1853, he advocated the distribution of conductive wires, grounding buckets of water, and zinc plates, as well as the alternating location of males and females, for the best séance results (fig. 3).³⁶ This assemblage of human, gendered, inanimate, organic, and inorganic parts facilitated, Davis clarified, “a repletion of organic or vital electricity” and reduced by one fifth the time required to summon the spirits.³⁷ Human bodies became active elements in accelerating spirit relays.

Davis’s innovations exemplified the ongoing turn of spirit communications towards a more democratic form of engagement. In stark contrast to the modes of strict and hierarchical worship endorsed by Calvinists and other leading faiths of the period, the circular arrangement of the séance decentralized authority, encouraged improvisation, and cultivated familiarity. Subsequent interpreters of the séance, such as spiritualist Emma Hardinge, argued that spontaneous expressions, too, were part of spiritual communication. In the instructional guide *Rules for the Formation and Conduct of Spirit Circles*, she encouraged participants to meet regularly, expect the unexpected, follow impulses “to write, speak, sing, dance or gesticulate” as they arose, and even encouraged parents to let their children take part in the circles.³⁸

In the 1850s, inventions like the spiritoscope and planchette (or Ouija board) completed the untethering of spiritualism from particular bodies. These and other instruments dispensed with the need for special talent to summon spirit raps, permitting any individual or group to conduct out-of-the-box spiritualist experiments. Further still, these devices bracketed the role of a conscious mind inasmuch as they allowed unregulated forces to flow throughout the limbs. In the case of the spiritoscope, a manipulated surface selected discrete letters from a wheel out of view of the operator;

36. See Andrew Jefferson Davis, *The Present Age and Inner Life; Ancient and Modern Spirit Mysteries Classified and Explained* (New York, 1870), p. 102.

37. Ibid.

38. Emma Hardinge et al., *Rules for the Formation and Conduct of Spirit Circles* (Boston, 1887), p. 7.



FIGURE 3. Illustration of proposed form for the séance alternating between an equal number of men and women, gathered in a circle traversed by a wire grounded in buckets of water. Andrew Jefferson Davis, *The Present Age and Inner Life: A Sequel to Spiritual Intercourse. Modern Mysteries Classified and Explained* (New York, 1853). Courtesy of Yale University Medical Library.

the planchette permitted the laying of multiple hands on a letter-selecting apparatus. Both instruments elicited new waves of belief from the public. No longer were the powers of spirit-rapping limited to neglected areas of the countryside or shadowy gatherings in the salon; now, spirit-rapping found itself in communication with shadowy, dark spaces of the self and with gaps in consciousness, where messages could slip through from the other side—all made possible by little tools that turned the human body into a divining rod for celestial transmissions.

Bachelor and Bachelorette Machines

Commentators have often read Walter Benjamin's comment "every epoch, in fact, not only dreams the one to follow but, in thus dreaming, precipitates its awakening" as a statement on how the future is seen in advance by fantastic visions of the present.³⁹ Spiritualism suggests a more complicated movement, wherein a phantasm itself offers material for the organization of new machines of production. As a result, dreams of time- and space-warping communication with the dead became elements in the construction of new infrastructures for communication. In this view,

39. Walter Benjamin, *The Arcades Project*, trans. Howard Eiland and Kevin McLaughlin, ed. Rolf Tiedemann (Cambridge, Mass, 1999), p. 898.

spiritualism was less an idea than it was a diagram, harbored for a moment in the solitary mind or individual body before realizing itself in the form of circles and machines. Consolidation and circulation of these machines traced the lacks in existing infrastructure. This analysis might explain the eruption of spiritualism in Hydesville years before the railway and electrical telegraph arrived, as well as its penetration into the finest capillaries of public and private distraction decades before the arrival of cinema and television.

Benjamin's account may also elucidate how spiritualism travelled across the Atlantic nearly a decade before the construction of the first transatlantic telegraphic cables, which swept across France, Germany, and England between 1851 and 1853. Reports of spirit-rapping and séances that appeared in European newspapers and illustrated weeklies served as working diagrams for the construction of spirit-machines in Paris, Berlin, Hamburg, and London.⁴⁰ The séance took particular hold among the leisured class, where it provided a way of putting idle bodies to work by creating stimulated, sexually charged dispositions in men and women. Here spiritualism became a machine for putting to work gender-based gaps dividing men and women of privilege.

From this practice emerged other innovations, table-turning and table tipping (fig. 4). Rather than holding hands and resting fingertips upon a planchette, participants in a circle would lay their fingertips on a table and overlap their fingers with one another, if possible in a setup alternating between men and women. After twenty or thirty minutes, numbness in the hands and fingers would give way to tilting messages that could answer questions through the Fox's rapping technique. Continued patience would lead to the spinning of the table. Women chased after men, men chased after women, all led by invisible forces. Yet the notion of chasing after spooks did not sit well with many educated participants. Thus less superstitious table tilters, such as the young Queen Victoria, embraced the

40. For an excellent primary account by an English author, see Newton Crosland, *Apparitions; An Essay, Explanatory of Old Facts and a New Theory, to Which Are Added, Sketches and Adventures* (London, 1873). For secondary accounts, see Monroe, *Laboratories of Faith*, pp. 15–63; Janet Oppenheim, *The Other World: Spiritualism and Psychical Research in England, 1850–1914* (New York, 1985), p. 219; Richard Noakes, "Spiritualism, Science, and the Supernatural in Mid-Victorian Britain," in *The Victorian Supernatural*, ed. Nicola Bown, Carolyn Burdett, and Pamela Thurschwell (New York, 2004), pp. 23–31; Alison Winter, *Mesmerized: Powers of Mind in Victorian Britain* (Chicago, 1998), pp. 262–68; and, more generally, Owen, *The Darkened Room: Women, Power, and Spiritualism in Late Victorian England* (Chicago, 1989).



FIGURE 4. Illustrations of three variants on table-turning manifestations from an 1853 manual joining occult and scientific with practical instructions. Anonymous, *Table Turning and Table Talking* (London, 1853). Courtesy of Das Institut für Grenzgebiete der Psychologie und Psychohygiene.

scientific explanation that magnetic and electrical forces were making their tables go topsy-turvy.⁴¹

Faraday Turns the Tables

In 1853, England's most celebrated living scientist and a talented public lecturer, Michael Faraday, decided to make his thoughts on table-turning known. "So many enquiries poured in upon me," he complained to a friend, "that I thought it better to stop the inpouring flood by letting all know at once what my views & thoughts were."⁴² Following recent findings of a colleague at the Royal Society, Faraday attributed the tables' motion to nonconscious movements of the participants' muscles that rocked and pushed the table.⁴³ Case closed. It was the frailties of a mind that could mistake such actions for spirits or electromagnetics, however, that

41. See Oppenheim, *The Other World*, p. 219.

42. Michael Faraday, letter to Christian Friedrich Schoenbein, 25 July 1853, *The Correspondence of Michael Faraday*, ed. Frank A. J. L. James, 6 vols. (London, 2013), 4:542.

43. See William B. Carpenter, "On the Influence of Suggestion in Modifying and Directing Muscular Movement, Independently of Volition," *Notices of the Proceedings of the Meetings of the Members of the Royal Institution* (London, 1854), pp. 147–53.

really vexed Faraday: “What a ridiculous world ours is, as far as concerns the mind of man. How full of inconsistencies.”⁴⁴ He therefore took it upon himself to isolate these inconsistencies and make them—rather than the table—an object of speculation to disseminate through the popular press. He would build a counterspirit machine.⁴⁵

Faraday brought to this task his documented talent for designing apparatuses that rendered invisible forces visible, such as electromagnetic induction. Like other experimentalists of the period—such as André-Marie Ampère, Charles Babbage, and later Etienne-Jules Marey—Faraday’s experiments often focused on registering forces unapparent to human perception by submitting them to circulation and play in ingeniously designed experiments.⁴⁶ In the case of electromagnetic induction, this process meant running current through coil A and measuring the brief impulse its magnetic field excited from coil B via the displacements on the needle of a galvanometer. These setups imagined an observer equipped with faulty sensory organs and faculties of reason and, as such, in constant need of technical supplementation. Experimentalists such as Faraday and Marey had little patience for what Jacques Derrida later described as the logocentrism of Western metaphysics, preferring the durable trace and the technical supplement over the testimony of the voice and the witness of the unadorned eye.⁴⁷

Faraday commanded the resources of the royal scientific infrastructure while spiritualists circumvented and supplemented it with their own ad hoc constructions, but both participated in a complementary infrastructural logic. The former’s setups functioned as the laboratory equivalents of larger infrastructural systems, be it the Erie Canal or the railway. Like these transportation routes, Faraday’s infrastructural system was premised on the design of interlinking standard parts that conveyed forces and signals across a heterogeneous apparatus. He took isolated phenomena and fit them within a stable system of measurement and circulation.

44. Faraday, letter to Schoenbien, 4:542.

45. For more on Faraday’s antispiritualist experiments, see Tiffany Watt-Smith, “Cardboard, Conjuring and ‘A Very Curious Experiment,’” *Interdisciplinary Science Reviews* 38 (Dec. 2013): 306–20.

46. On Marey, see Robert M. Brain, “Representation on the Line: Graphic Recording Instruments and Scientific Modernism,” in *From Energy to Information: Representation in Science and Technology, Art, and Literature*, ed. Bruce Clarke and Linda Dalrymple Henderson (Stanford, Calif., 2002), pp. 158–77; on Babbage, see Greg Siegel, “Babbage’s Apparatus: Toward an Archaeology of the Black Box,” *Grey Room* 28 (Summer 2007): 30–55; and on Ampère, see John Tresch, *The Romantic Machine: Utopian Science and Technology after Napoleon* (Chicago, 2012).

47. See Jacques Derrida, *Of Grammatology*, trans. Gayatri Spivak (Baltimore, 1976).

As did his spiritualist counterparts, Faraday focused his efforts on capturing forces outside the established systems of relay and inscription. A truly experimental machine is always partly an antimachine, operating at cross-purposes to established knowledge, actively bringing alien agents into the social order.

Faraday's first public intervention on spiritualism was a letter to the editor in the London *Times*.⁴⁸ Summarizing the results from his experiments, the letter announced a plan to present his findings in a performance at the London Athenaeum. His spectacular performance revolved around an apparatus that consisted of marked, layered cards placed between the hands of the table-turners and the tabletop (fig. 5). Motions from the hands resting on the table (rather than the autonomous movement of the table) would misalign the cards. Through this simple mechanism, Faraday showed how the decentralized micromovements of hands around the table combined to tilt the table collectively. But as Faraday explained in a published report, "the most valuable effect of this test-apparatus . . . is the corrective power it possesses over the mind of the table turner."⁴⁹ A removable pin could be attached to the apparatus, and its motions left and right would register in magnified scale any small movements of the hands. Since the alignment of cards provided a durable record of the hands' movements, this register served no value to the scientists; rather, the pin acted on the table-turners. As soon as individuals saw the nonconscious motions of their hands magnified and displaced onto the impartial register, their micromotions stopped, and the table ceased to shift. If this same pin was removed from view, the motions recommenced.

Faraday had devised a machine that disproved the spiritualists' claims through its revelation of absences in the human apparatus. Removed, the needle in this machine defined a negative space through which phantom forces acted upon the minds and extremities of the human subject. Inserted, it showed a human whose integrity and reliability emerged from without. The truth of Faraday's discourse rested on empty space defined by the machine rather than a positive force merely measured. The aim of scientific experimentation was to reach into that gap and annihilate the forces that slipped through its cracks.

In a lecture the following year that touched on the table-turning controversy, Faraday contrasted the wanton disregard of table-tippers to the

48. See Faraday, "Experimental Investigation of Table-Moving," *Journal of the Franklin Institute* 56 (Nov. 1853): 328.

49. *Ibid.*, p. 331.

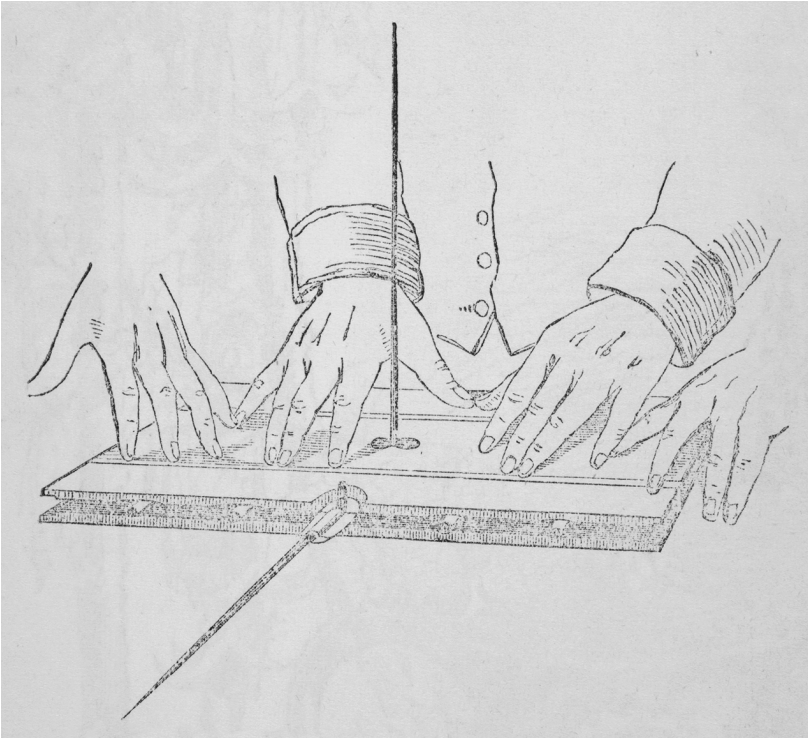


Figure 5. Illustration of the apparatus of layered materials and registering needle, placed on tables, to identify micromovements in the hand responsible for the table-turning phenomena. Frank James, *Michael Faraday, a Very Short Introduction* (New York, 2010).

instrumentally produced discipline of scientific experimentation. He characterized experimenting as a practice of “wholesome self-abnegation” that elicited “experience of deficiency rather than of attainment” in the experimentalist.⁵⁰ To this self-annihilating subject of science he contrasted the table-turners whose boldness, credulity, and undisciplined desires prevented them from truly observing and learning from nature.

Announced in the press, displayed in spectacular form, and circulated around by sensationalistic coverage, Faraday’s experiment had captured in miniature a machine widespread in mid-nineteenth-century science and entertainment. Based on the fragile integration of human and non-human elements, this machine established “functioning, arrangements of flows and interruptions that are directed toward the production of semiotic

50. Faraday, “Observations on Mental Education,” *Lectures on Education* (London, 1854), pp. 59, 76.

events,” which meant the machine split the difference between human and automaton by redistributing elements of both.⁵¹ Establishing a scaling among parts—a continuous relay that could be deployed for instruction or diversion—the machine opened up gaps where none had existed before (in perception, in the lines between human and machine) while closing them up with ingenious infrastructures that integrated the human and nonhuman in a common circuit of relay.

Symmetry and Beyond

The demonstration of table-tipping did not, however, have Faraday’s intended effect. Tables continued to tilt, and spirits continued to rap. The inconsistencies he detected in the mind of man opened wide and became a surface for the play of new games and new rounds of spiritualist rebuttal. Bundled together by a fragile infrastructure of index cards and muscular twitches, composed by the gaze of an astonished audience, and reported on in the press, his portrait of man “full of contradictions” sustained the very networks he hoped his demonstration would rein in. His antispirit machine appeared, at best, a minor variant (and possibly a necessary counterpart) to the spirit machine itself. The self-abnegating subject of science, no less than the spiritualist, was structured around a series of gaps held together by an infrastructure of relays.

Considered schematically and symmetrically, both Faraday and the spiritualists decentered human perceptions within networks of humans and nonhumans. The scientist did so through his experimental apparatuses; the table turners used tables, techniques, and nonconscious desires. In addition, Faraday and the spiritualists enabled this uncanny redistribution by bringing lively instruments into their midst. The spirit-registering needle and its spiritualist cousin the planchette created flows and actions irreducible to their human users. These performances, spiritualist and scientific, structured truth around the blind spots of human perception. Magnetic induction, the show at the Athenaeum, and the performances in Rochester placed deductive analysis of primary forces constitutively outside human perception. The spaces for these performances also overlapped. Faraday and his would-be opponents took to the media theaters of the mid-nineteenth century, where pseudo-democratic appeals to curiosity and self-improvement trumped disciplined obedience to established authority.⁵²

51. Henning Schmidgen, “The Donders Machine: Matter, Signs, and Time in a Physiological Experiment, ca. 1865,” *Configurations* 13 (Spring 2005): 214.

52. For more of the intersections of science and spectacle in this period, see Iwan Rhys Morus, *Frankenstein’s Children: Electricity, Exhibition, and Experiment in Early-Nineteenth-Century London* (Princeton, N.J., 1998).

Finally (and here they diverged not only with an earlier generation of scientists and theologians but also with many of their contemporaries), Faraday and his opponents embraced the truth of the apparatus. They rejected a priori suppositions in favor of facts generated by a well-regulated machinic relay.

Symmetry, however, is relative. It is not an intrinsic property of the actors themselves but at most the fragile product of a well-framed snapshot. In the course of the nineteenth century, dissymmetry also appeared. For one thing, Faraday's methods translated well into other discourses and apparatuses.⁵³ James Clark Maxwell translated Faraday's research into mathematical terms that founded the field of electromagnetic research. This mathematics had no need of the 1848 apparatus.⁵⁴ Psychologists adapted ideomotor movement and other imperceptible phenomena into the foundations for experimental psychology and physiology.⁵⁵

Spiritualism did not translate across infrastructures with the same ease. As the nineteenth century progressed, the movement fell under the control of a commercial and organizational apparatus that reduced its most uncanny features. Streamlined management of travelling entertainments and growing national organization across the spiritualist movement promoted more orderly networks of communication.⁵⁶ This shift coincided with a wider standardization of attractions into a narrative and commodified forms and their most disruptive aspects.⁵⁷ Moreover, scientific proponents of spiritualism, so-called psychic researchers, proved better at documenting aberrant inexplicable phenomena than at demonstrating general principles suitable for reproduction and translation.⁵⁸ By the dawn of the twentieth century, an enveloping program of telegraphs, railways, electrical lighting, wire news services, and other national infrastructures

53. This mathematization produced what Bruno Latour has termed "immutable mobiles" (Latour, "Drawing Things Together," in *Representation in Scientific Practice*, ed. Michael Lynch and Steve Woolgar [Cambridge, Mass., 1990], p. 32).

54. See, for example, J. C. Maxwell, "On Physical Lines of Force," *Philosophical Magazine* 21 (Mar. 1861): 161–75.

55. See, for example, J. Mark Baldwin, "Suggestion in Infancy," *Science*, 27 Feb. 1891, pp. 113–17.

56. See Braude, *Radical Spirits*, pp. 161–91.

57. See Gunning, "The Cinema of Attraction: Early Film, Its Spectator, and the Avant-Garde," *Wide Angle* 8 (Fall 1986): 63–70.

58. See, for example, the series of dialogues among a skeptic and a spiritualist researcher starting with Charles S. Peirce, "Criticism on 'Phantasms of the Living,'" *Proceedings of the American Society for Psychical Research* 1 (Dec. 1887): 150–57, and Edmund Gurney, "Remarks on Professor Peirce's Paper," *Proceedings of the American Society for Psychical Research* 1 (Dec. 1887): 157–80.

offered an increasingly regular provision of services.⁵⁹ Industry squeezed the spirits out, meting out disturbance as a productive factor in transitions among spaces and technologies.⁶⁰

Mind the Gap

The tapering off of table-turning and the fading out of spirit-rapping in the first few decades of the twentieth century could be taken as a sign of their insubstantial or phantasmatic character, so their ephemerality becomes a sign of their insubstantiality. The common historiographic strategy of labeling spiritualist manifestations the creative expressions of oppressed groups follows this tack by treating spiritualism as a manifestation of frustrated desires. Such depictions represent a conservative reading of spiritualism, a kind of gentle debunking that reduces spiritualism to the solitary agencies of the human mind and its desires. On this reading otherworldliness becomes but another mode of human worldliness. Now well-defined, the absence and haunting at the core of spiritualist manifestations then correlates to empirical social conditions. This line of analysis could provide a suitable conclusion for the Fox account as well, with splintered infrastructure standing in for splintered social orders.

The intellectual movement of the infrastructural uncanny, however, moves in another direction. Take the late reflections of William James in his 1909 essay "The Confidences of a 'Psychical Researcher,'" penned a year before his death, which looked back on his twenty-five years of studying spiritualism and related phenomena.⁶¹ Like Faraday, James saw in spiritualism the contradictions of the mind on full display, but he believed that these contradictions hinted at truths irreducible to the human mind and materialist explanation. "It is to me," he wrote, "dramatically improbable that the swindling [of spirit mediums] should not have accreted round some originally genuine nucleus" ("CPR," p. 371). For James, that nucleus was the prospect of continuous communication operating outside "the armor of human minds" ("CPR," p. 373). Offering a portrait of a world of ubiquitous and intertwined communication networks, he proposed in "Confidences,"

59. See, for example, Stephen Graham and Simon Marvin, *Splintering Urbanism: Networked Infrastructures, Technological Mobilities, and the Urban Condition* (New York, 2001), pp. 66–81; Thomas P. Hughes, *Networks of Power: Electrification in Western Society, 1880–1930* (Baltimore, 1983); Ronald R. Kline, *Consumers in the Country: Technology and Social Change in Rural America* (Baltimore, 2000); and John, *Network Nation*, pp. 340–69.

60. See, for example, Lauren Rabinovitz, *Electric Dreamland: Amusement Parks, Movies, and American Modernity* (New York, 2012).

61. See William James, "The Confidences of a 'Psychical Researcher' (1909)," *Essays in Psychical Research* (Cambridge, Mass., 1986); hereafter abbreviated "CPR."

there is a continuum of cosmic consciousness against which our individuality builds but accidental fences, and into which our several minds plunge as into a mother-sea or reservoir. Our 'normal' consciousness is circumscribed for adaptation to our external earthly environment, but the fence is weak in spots, and fitful influences from beyond leak in, showing the otherwise unverifiable common connexion. ["CPR," p. 374]

This explanation hints at another kind of symmetry among the spiritualists and their opponents. Confronted with contradictions, both Faraday and the Fox sisters built a machine, gave it codes, and made it produce. Both parties reduced communication to a quasicognitivist property of human minds (hence the *ideo-* in *ideomotor*), living or dead. Yet, for James, there was an important distinction between spiritualists and their opponents. Before the spiritualists conjured up familiar voices to speak through this gap, before the audience members heard those raps produced by subterfuge, they listened for a message in the silent empty space.

In the century since James's writing we have made a progress worthy of his confidences. For want of suitable descriptors James dubbed this intelligence from beyond the fence a cosmic consciousness, but today we possess a wide vocabulary and conceptual framework for talking about the role of nonconscious and nonliving entities in shaping communications. For many cultural theorists it is in fact quite reasonable to believe that architectural features, the raw materiality of an inscription, the affordances of door openers, and other inanimate objects convey communications registered belatedly and obliquely by the human mind.⁶² Such investigations substantiate the fact that *our thoughts* and *our desires* coincide with the imperatives of a nonhuman world around us. We can now see that the fencing of individuality is not a construct of our mind alone but is instead continuous with the physical world. Streets and villages, pipes and prescription pills, churches and coffee shops, algorithms and aggregations: these, too, cultivate the borders of the individual self, conditioning its emergence and reappearance where it is expected, consolidating the ruptures, and containing the gaps where another kind of mind might appear. Therein lies the enduring message of spiritualism: Mind the gap.

62. See, for example, Jacques Lacan, "The Instance of the Letter in the Unconscious, or Reason since Freud," in *Écrits: The First Complete Edition in English*, trans. Bruce Fink, Héloïse Fink, and Russell Grigg (New York, 2006), pp. 412–44; Edwin Hutchins, *Cognition in the Wild* (Cambridge, Mass., 1995); and Friedrich A. Kittler, *Discourse Networks 1800/1900*, trans. Michael Metteer and Chris Cullens (Stanford, Calif., 1990).